#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

WALKER et al.

Atty. Ref.: 922-140

Serial No. Unknown

Group:

Filed: July 10, 2001

Examiner:

For: OPTIMISATION OF NETWORK CONFIGURATION

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July 10, 2001

Assistant Commissioner for Patents Washington, DC 20231

Sir:

#### PRELIMINARY AMENDMENT

In order to place the above-identified application in better condition for examination, please amend the application as follows:

#### IN THE CLAIMS

Please substitute the following amended claims for corresponding claims previously presented. A copy of the amended claims showing current revisions is attached.

- 3. (Amended) A method according to claim 1 further including applying a plurality of series of interrogations to the port and link relating to different aspects of configuration.
- 4. (Amended) A method according to claim 1 in which the series of interrogations relates to one of duplex, trunk link, link speed and resilient link configurations.

- 5. (Amended) A method according to claim 1 in which the indication of the detected non conformity includes a display of information on the configurations and of the change required to establish conformity.
- 7. (Amended) A method according to claim 1 in which the link comprises a remote connection and the configuration information relates to the remote connection.
- 8. (Amended) A method according to claim 1 in which the configuration information relates to a property of an interconnecting material that comprises the link.
- 9. (Amended) A method according to claim 1 in which the accessing of the configuration information is implemented externally of the network.
- 10. (Amended) A method according to claim 1 in which the accessing of the configuration information is implemented in a device on the network.
- 11. (Amended) A method according to claim 1 in which the accessing of the configuration information is initiated remotely.
- 12. (Amended) A method according to claim 1 in which the interrogations determine whether the port and the port at the other end of the link are running half or full duplex mode and if both said ports are not running at the same duplex mode an indication of non conformity is given.
- 13. (Amended) A method according to claim 1 in which the interrogations determine whether the link is running at half duplex, and if so, when the link is to another managed device whether the ports at both ends of the link are capable of full duplex and if so an indication of full duplex capability is given.
- 14. (Amended) A method according to claim 1 in which the interrogations determine whether the link is running at half duplex and if so, and the other device attached to the link is not managed, an indication is given of a potential inefficiency.

- 15. (Amended) A method according to claim 1 in which, when there is a managed device at the other end of the link, the interrogations determine whether the link is a trunk link, and if so whether each port in the trunk is enabled, whether there are equal numbers of ports at each end of the trunk link and whether all ports have an active link and when any of these are NO an indication is given.
- 16. (Amended) A method according to claim 1 in which, if the interrogations indicate that there are any free ports on both devices that could be used as part of a trunk line, an indication is given.
- 17. (Amended) A method according to claim 1 in which the interrogation determine whether the link is a trunk link, and when the link is not a trunk link the interrogations determine whether both devices are trunk link capable and whether there are free ports on each device and if so an indication is given.
- 18. (Amended) A method according to claim 1 in which if the device at the other end of the link is not managed the interrogations determine whether the link is a trunk link and if so provides an indication of a misconfiguration.
- 19. (Amended) A method according to claim 1 in which the interrogations determine whether auto-negotiation is switched on at both ends of the link and if so whether the link is running at maximum speed, and if not and the device at the other end of the link is managed an indication is given to check the physical connection between the two devices for correct type.
- 20. (Amended) A method according to claim 1 in which the interrogations determine whether the port has been set to run at a fixed speed less than its maximum capability or at a fixed speed but is running at optimum speed, and in either instance provides an indication to turn on autonegotiation.

- 21. (Amended) A method according to claim 1 in which the interrogations determine whether auto-negotiation is switched on and if so whether the link is running at maximum speed, and if not and the device at the other end of the link is not managed an indication to check the unmanaged device for upgrade is given.
- 22. (Amended) A method according to claim 1 in which the interrogations determine whether the link is a resilient link and if so whether the ports at each end of the link both form part of a resilient pair on their respective devices, and if so an indication of misconfiguration is given.
- 23. (Amended) A method according to claim 1 in which the interrogations determine whether the standby port of a resilient pair is on the same unit as the main port and if so whether the device contains multiple units, and if so an indication to move either the main port or the standby port to another unit is given.
- 24. (Amended) A computer program comprising program instructions for causing a computer to perform the method of claim 1.
- 26. (Amended) A computer program according to claim 24 on a computer readable medium or embodied in a carrier wave.
- 27. (Amended) A networked device controlled by a method according to claim 1.
- 28. (Amended) A network controlled by a method according to claim 1.

# **REMARKS**

The above amendments are made to place the claims in a more traditional format.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached pages are captioned "Version With Markings To Show Changes Made."

Respectfully submitted,

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# **VERSION WITH MARKINGS TO SHOW CHANGES MADE**

#### IN THE CLAIMS

- 3. (Amended) A method according to claim 1 [or claim 2] further including applying a plurality of series of interrogations to the port and link relating to different aspects of configuration.
- 4. (Amended) A method according to [any preceding claim] <u>claim 1</u> in which the series of interrogations relates to one of duplex, trunk link, link speed and resilient link configurations.
- 5. (Amended) A method according to [any preceding claim] <u>claim 1</u> in which the indication of the detected non conformity includes a display of information on the configurations and of the change required to establish conformity.
- 7. (Amended) A method according to [any preceding claim] <u>claim 1</u> in which the link comprises a remote connection and the configuration information relates to the remote connection.
- 8. (Amended) A method according to [any preceding claim] <u>claim 1</u> in which the configuration information relates to a property of an interconnecting material that comprises the link.
- 9. (Amended) A method according to [any preceding claim] <u>claim 1</u> in which the accessing of the configuration information is implemented externally of the network.
- 10. (Amended) A method according to [any of claims 1 to 8] <u>claim 1</u> in which the accessing of the configuration information is implemented in a device on the network.
- 11. (Amended) A method according to [any of claims 1 to 8] <u>claim 1</u> in which the accessing of the configuration information is initiated remotely.
- 12. (Amended) A method according to [any preceding claim] <u>claim 1</u> in which the interrogations determine whether the port and the port at the other end of the link are running half or full duplex mode and if both said ports are not running at the same duplex mode an indication of non conformity is given.

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- 13. (Amended) A method according to [any preceding claim] <u>claim 1</u> in which the interrogations determine whether the link is running at half duplex, and if so, when the link is to another managed device whether the ports at both ends of the link are capable of full duplex and if so an indication of full duplex capability is given.
- 14. (Amended) A method according to [any preceding claim] <u>claim 1</u> in which the interrogations determine whether the link is running at half duplex and if so, and the other device attached to the link is not managed, an indication is given of a potential inefficiency.
- 15. (Amended) A method according to [any preceding claim] <u>claim 1</u> in which, when there is a managed device at the other end of the link, the interrogations determine whether the link is a trunk link, and if so whether each port in the trunk is enabled, whether there are equal numbers of ports at each end of the trunk link and whether all ports have an active link and when any of these are NO an indication is given.
- 16. (Amended) A method according to [any preceding claim] <u>claim 1</u> in which, if the interrogations indicate that there are any free ports on both devices that could be used as part of a trunk line, an indication is given.
- 17. (Amended) A method according to [any preceding claim] <u>claim 1</u> in which the interrogation determine whether the link is a trunk link, and when the link is not a trunk link the interrogations determine whether both devices are trunk link capable and whether there are free ports on each device and if so an indication is given.
- 18. (Amended) A method according to [any preceding claim] <u>claim 1</u> in which if the device at the other end of the link is not managed the interrogations determine whether the link is a trunk link and if so provides an indication of a misconfiguration.

- 19. (Amended) A method according to [any preceding claim] <u>claim 1</u> in which the interrogations determine whether auto-negotiation is switched on at both ends of the link and if so whether the link is running at maximum speed, and if not and the device at the other end of the link is managed an indication is given to check the physical connection between the two devices for correct type.
- 20. (Amended) A method according to [any preceding claim] <u>claim 1</u> in which the interrogations determine whether the port has been set to run at a fixed speed less than its maximum capability or at a fixed speed but is running at optimum speed, and in either instance provides an indication to turn on auto-negotiation.
- 21. (Amended) A method according to [any preceding claim] <u>claim 1</u> in which the interrogations determine whether auto-negotiation is switched on and if so whether the link is running at maximum speed, and if not and the device at the other end of the link is not managed an indication to check the unmanaged device for upgrade is given.
- 22. (Amended) A method according to [any preceding claim] <u>claim 1</u> in which the interrogations determine whether the link is a resilient link and if so whether the ports at each end of the link both form part of a resilient pair on their respective devices, and if so an indication of misconfiguration is given.
- 23. (Amended) A method according to [any preceding claim] <u>claim 1</u> in which the interrogations determine whether the standby port of a resilient pair is on the same unit as the main port and if so whether the device contains multiple units, and if so an indication to move either the main port or the standby port to another unit is given.
- 24. (Amended) A computer program comprising program instructions for causing a computer to perform the method of [any of claims 1 to 23] <u>claim 1</u>.

- 26. (Amended) A computer program according to claim 24 [or claim 25] on a computer readable medium or embodied in a carrier wave.
- 27. (Amended) A networked device controlled by a method according to [any of claims 1 to 23] claim 1.
- 28. (Amended) A network controlled by a method according to [any of claims 1 to 23]  $\underline{\text{claim 1}}$ .